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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,654	07/24/2003	Masanobu Okada	O3020.0342/P342	8902
24998	7590	05/10/2004	EXAMINER	
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP			KOYAMA, KUMIKO C	
2101 L STREET NW			ART UNIT	
WASHINGTON, DC 20037-1526			PAPER NUMBER	
			2876	

DATE MAILED: 05/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/625,654

Applicant(s)

OKADA, MASANOBU

Examiner

Kumiko C. Koyama

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 072403, 120403
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata et al (US 6,629,643) in view of Okano (JPO11-153666) and Furuya (US 6,164,538).

Re claims 1, 3-5 and 7-8: Nagata teaches a magnetic card reader 1 including a card slot 5 (col 2, line 32), a magnetic head 15 formed in the card reader to perform reading from and writing onto the magnetic card 6 (col 3, lines 15-18) and a guiding path 8 with rollers 11-13 to transfer the card in the path (col 2, lines 37-49). The card is also ejected utilizing the pair of rollers 11-13 (col 3, lines 34-40). Nagata shows a magnetic head 20 located outside of the slot 5 (Fig. 1). Nagata further teaches that a magnetic head acts as a detector for detecting magnetic cards (col 2, lines 29-32), which is considered as a sensor for detecting whether a card is present outside the card entrance.

Nagata fails to teach an ultrasonic wave sensor comprising a transmitter to transmit ultrasonic waves outside the card entrance and a receiver to receive reflected waves of ultrasonic waves from a body when the body is present at the card entrance. Nagata also fails to teach a memory for storing as a reference duration a necessary duration from transmission of ultrasonic waves to reception in the case where a card is present outside the card entrance, and an

abnormality determination unit to make a comparison between the necessary duration at the time of reception of ultrasonic waves transmitted from the transmitter when the card conveyance mechanism discharges the card and the reference duration stored in the memory.

Okano discloses emitting ultrasonic wave repeatedly from an ultrasonic wave transmission element of each ultrasonic sensor toward a monitoring region and receiving reflection wave appearing in a specific monitoring period from the time of ultrasonic wave emission using an ultrasonic wave reception element at each time, the ultrasonic wave emission interval is made irregular for each ultrasonic wave sensor and the reflection wave received in the monitoring period is stored in memory means in turn. Based on a plurality of reflection wave data stored in the memory means, the existence of an object in the monitoring region is detected (Abstract).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Okano to the teachings of Nagata in order to determine whether a card is discharged in a proper manner for the user to receive his/her card from the card reader, and also ensures the safety of the reader from inappropriate objects from entering the reader.

Although Nagata discloses a magnetic card reader being attached to a magnetic card transaction apparatus, he fails to specifically disclose an output circuit for outputting information read by the readout head.

Furuya teaches a detector circuit being connected to an amplifier and the amplifier being connected to the comparator for further output of the data (Fig. 1).

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Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Furuya to the teachings of Nagata as modified by Okano in order to adjust or customize the readout signal such that the transaction apparatus receive and process the data for further processing of the transaction.

Re claim 2 and 6: Nagata does not teach that the magnetic head 20 detects a foreign body is present outside the card entrance.

However, one of the embodiments of Nagata's invention shows a detector 70 that is an optical reflective sensor that detects a foreign object on the front surface (col 5, lines 45-50).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the teaching of Nagata in order to detect non magnetic card objects such that the card reader can prevent non magnetic card objects from entering the reader to ensure the safety of the reader and avoid any damages that may occur from foreign objects entering the reader.

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Eason et al., U.S. Patent No. 6,345,760, discloses detecting IC cards.

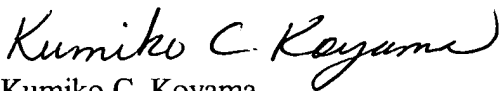
Mori et al., U.S. Patent No. 6,138,907, discloses a detector at the card entrance.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kumiko C. Koyama whose telephone number is 571-272-2394. The examiner can normally be reached on Monday-Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Kumiko C. Koyama  
April 29, 2004

  
**DIANE I. LEE**  
**PRIMARY EXAMINER**